APPENDIX E

TO EXHIBIT 1

DEFECTS IN THE ECONOMIC IMPACT ANALYSIS PROVIDED BY THE USPTO FOR ITS NEW CLAIMS AND CONTINUATION RULES

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Exhibit 11 February 7, 2007, USPTO e-mail from Gregory Morse, Claims in CONs, CIPs, issues in 2006, (A04993 - A04995).

Exhibit 12 USPTO Information Collection Request filings at OMB, control # 0651-0031, related to the New Rules as included in ICR No. 200707-0651-005. Retrieved from OMB's site at http://www.reginfo.gov/public/do/PRAICList?ref_nbr=200707-0651-005

Exhibit 13 March 14, 2007, USPTO e-mail from Gregory Morse to John Doll, Number of 3 CON/CIP filings or 4+ CON/CIP/RCE/CPA filings, by TC as o 3/13/07 (A05022).

Exhibit 14 May 6, 2007, USPTO e-mail from Robert Bahr to John Collier, Claims by Application Family, (A08241 - A08242).

Exhibit 15 September 29, 2006, Pre-Examination Support Document for Attorney Docket No. 076376.0411, (A07484 - A07560).

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Exhibit 17 September 29, 2006, Pre-Examination Support Document for Attorney Docket No. 076376.0413, (A07610 - A07698).

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Exhibit 19 May 8, 2007, e-mail from John Collier to Robert Bahr, "Bottom up analysis of ESD", (A08249 - A08250).

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Exhibit 21 January 29, 2007, USPTO e-mail from Peter Toby Brown to Robert Bahr, Terminal Disclaimers in FY 1999-2001 Filings, (A04784 - A04785).

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1 INTRODUCTION

This document sets forth some factual elements related to the U.S. Patent and Trademark Office's ("USPTO") new rules limiting continuations and claims[1] (the "New Rules"). This document describes the USPTO deficient economic impact analysis of the New Rules as described in the New Rules' supporting text and in a Regulatory Flexibility Act certification study. It shows that in virtually every aspect, the USPTO's analysis is fundamentally wrong and lacks support. Reference is made in certain sections to exhibits and appendices provided in this author's Amicus Curiae Memorandum and companion declaration (Exhibit 1, Declaration of Dr. Ron D. Katznelson), hereinafter called "Dr. Katznelson Decl.", to which this report is appended.

2 USPTO'S ASSERTION OF EQUIVALENCE BETWEEN THE 5/25-CLAIM LIMIT AND A 15/75-CLAIM LIMIT LACKS SUPPORT

The USPTO explained its rule limiting applications to 5 independent claims or to a total of 25 claims (the "5/25 threshold") by resorting to "analytical" methods that lack rational support. It argued that applicants would adaptively have three opportunities in a chain or family of applications to file up to 5/25 claims without having to submit an Examination Support Document ("ESD"), resulting in a total of 15 independent or 75 total claims (the "15/75 threshold").[2] The USPTO then concluded that the impact of the 5/25 limit rule after the New Rules go into effect can be predicted by counting the number of applications that were filed with more than 15/75 claims in FY 2006, a time during which applicants could not have reacted to the New Rules. In the USPTO's Regulatory Flexibility Act Study it published after the New Rules were issued, (the "RFA Study")[3], this was further explained as follows:

> "USPTO ***staff believe*** that once the final rule is adopted, applicants with more than five but less than 15 independent claims, or more than 25 but less than 75 total claims, ***will choose*** to prosecute their application in a manner that does not trigger the claims requirements. They will be able to do this under the final rule by submitting an initial application containing up to five independent claims and up to 25 total claims, and then adding a similar number of claims in each of two continuation applications (or two continuation-in-part applications, or one continuation application and one continuation-in-part application) as permitted without a petition".[4] (Emphasis added).

As a threshold matter, the New Rules do ***not*** set a limit of ***15/75 to a family of applications***, but rather a limit of 5/25 for a single application**.** The rule would have been much less drastic had it merely set limits of 15/75 for the aggregate number of claims in a family of three applications.

While admitting that 24-30% of applications would be affected by the New Rules because they have more than 5/25 claims[5], the USPTO asserts that applicants of substantially all but a few percent of those applications affected could avoid adversity by changing their claiming practice.

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[1] **72** *Fed. Reg.* 46716**,** (Aug 21, 2007).
[2] *C.f.* New Rules at 46795, col. 2.
[3] USPTO, *Certification Analysis Under The Regulatory Flexibility Act*, by ICF International, Published no earlier than August 28, 2007 at http://www.uspto.gov/web/offices/pac/dapp/opla/presentation/ccfrcertificationanalysis.pdf. (Exhibit 2).
[4] RFA Study, note 3, at 12.
[5] Exhibit 10, at A05025, (indicating that 30% of the applications in the back-file which had no first office action exceed the 5/25 threshold). The New Rules' text (at 46788, Col. 2) indicates that only 24% of the applications filed in FY 2006 exceed the 5/25 threshold. It ignores, however, that due to the long pendency, the back-file applications being examined first, would dominate triggering possible ESD submissions for FY 2008 and FY 2009, thereby affecting approximately 30% of applications.

It asserts so based merely on "***USPTO staff's belief***" as to how ***affected*** applicants would ***adapt*** in response to the New Rules' claim limits. There is nothing in the record to substantiate or support such ***belief***. The USPTO has conducted no study, modeling or analysis of adaptive response of applicants to the New Rules. It did not derive any model scenario of claim number distributions in patent applications ***subsequent*** to the New Rules' adoption based on applicants' purported adaptive response. By necessity, however, its quantitative conclusions cited above require having such a post-rule claim distribution model. Thus, there is no basis or support for the USPTO's assertions based on its FY 2006 15/75 claim number distribution.

Consequently, in an "analysis" that directly contradicts its assertion that applicants would transfer excess claims to other applications, the USPTO assumed that such claim distribution and the number of underlying applications would somehow remain ***unchanged*** under the New Rules. The USPTO then used the ***existing*** claim distributions prior to the New Rules to derive the number of incidences that would exceed the 15/75-claim count threshold ***after adoption*** of the New Rules. The results obtained that way grossly underestimate the adverse effect of the New Rules.

Stated in another way, according to USPTO's data on claim distribution in applications, some 2.5 Million claims[6] would be filed in applications during FY 2008 in excess of the 5/25 threshold if the New Rules were not in effect. According to USPTO's assertion, under its New Rules, applicants would somehow transfer these excess claims to subsequent continuation applications. Because such subsequent continuation applications could not contain more than 25 claims each, the excess claims would have to be distributed across at least 100,000 (2,500,000/25) ***new*** continuation applications every year, nearly doubling the number of continuations filed annually. This outcome clearly contradicts the outcome stated and planned by the USPTO. The Administrative Record does not permit a resolution of this contradiction because the USPTO failed to supply any post-rule model including the estimated number of claims that would be cancelled and never filed for want of compliance with the New Rules, or the number of additional continuation applications required to salvage other claims in excess of 5/25. In this regard, the USPTO also neglected to assess the private value of cancelled claims that would be lost by applicants every year. Other contradictions indicating that the USPTO's 15/75 "claim transfer" proposition lacked reasoned consideration are abundant, as shown below:

First, by suggesting the "solution" of excess claim transfer to a subsequent continuation to avoid having to file an ESD, the USPTO ignored its own rule that would prevent applicants from actually doing so in any reasonable period of time so as to provide patent protection for their new products. This is because §1.75(b)(4) precludes the combination of more than 5/25 claims in ***any*** number of related applications due to the presumption established by §1.78(f)(2) that the claims in such applications are patently indistinct. In contrast, no requirement that claims be patently distinct exists for any number of claims filed in a single application. Thus, the USPTO suggests that applicants could engage in application bifurcation practices that it expressly sought to prevent by adopting its New Rules.[7] Alternatively, USPTO's suggestion that excess claims could be submitted (years later) in applications prosecuted serially (each at the conclusion and allowance of the preceding application) contradicts its own admission that such delay in obtaining claims would undermine patent protection.[8]

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[6] Calculations based on USPTO claim distribution data in the record (A03554-A03620), show that about 2.35 million claims per year were submitted in excess of 5/25. An estimate of 2.5 million claims for FY 2008 is obtained after applying the appropriate annual changes and growth trends.

[7] New Rules, at 46722, Col. 1, ("applicants are cautioned against intentionally filing related applications outside of this two-month window in an attempt to avoid the requirement to identify other [related] applications… This final rule provides that if multiple applications, including applications having a continuity relationship, contain patentably indistinct claims, the Office will treat the multiple applications as a single application for purposes of determining whether each of the multiple applications exceeds the [5/25-claim] threshold. This provision is to ***preclude*** an

Second, the suggestion for using continuations to "transfer" excess claims from initial applications indicates that the USPTO ignored the vast body of evidence supplied during public comments. The public comment record is replete with explanations as to the reasons and purposes of continuations and why one cannot allocate upfront specific subject matter to be claimed in such continuations.[9] As explained by the comments, continuations are typically filed years after filing the parent application and are often in response to newly discovered facts, office actions and other requirements for introduction of a number of claims that could not have been anticipated. However, the New Rules' text details many of these as circumstances under which the Office would actually ***deny*** petitions for filing a third continuation.[10]

Third, the USPTO failed to show how applicants who would ostensibly defer filing all claims in excess of 5/25 to a continuation application filed serially years later, could do so in every instance under its continuation limit of the New Rules. By deferring the filing of such claims in an initial application, applicants would forever forfeit their ability to add them after a petition for a third continuation in the application family. This is because they would be unable to truthfully show that such claims could not have been submitted previously.

Fourth, the USPTO ignores the fact that many of the applications having more than 25 total claims contain claim groups each having a large number of claims that depend from a single independent claim. Those are integral claim packages, each defined by an independent claim and cannot be "broken" into pieces across multiple applications. The USPTO failed to provide any analysis or estimates of the numbers of such claim groups and specific suggestions as to how such claim structures could be distributed among applications filed serially years apart from each other.

Finally, the USPTO knew that such "claim transfer" option does not really exist for applicants of continuations because its data show that initial applications that later become parents to subsequent continuations already have many more claims at filing than an average application.[11] USPTO's staff statement that "***applicants won't disproportionately file CONs/CIPs to get extra***

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applicant from submitting ***multiple applications*** with claims that are patentably indistinct, each with five or fewer independent claims or twenty- five or fewer total claims, for ***the purposes of avoiding the requirement to submit an examination support document*** in compliance with § 1.265"). (Emphasis added)

[8] New Rules, at 46756, Cols.1-2, ("In fiscal year 2006, the average pendency to first Office action … was much higher in certain areas (e.g., in Technology Center 2100 (computer architecture, software and information security) the average pendency to first Office action was 30.8 months, and in Technology Centers 3620 and 3690 (electronic commerce) the average pendency to first Office action was 43.9 months). … long pendency of patent applications is problematic in some industries (e.g., computer software and hardware technologies) where product life cycles are short and new improvements can quickly make the technology obsolete. … The Office has the responsibility to take appropriate action to improve efficiency, patent quality and pendency").

[9] PTO's suggestion that a CIP may be used to file excess claims which could have been filed in an initial application (but for the 5/25 limit) is counterfactual because, by definition, CIPs are filed to claim new matter that is discovered and added to the specification after the filing of the initial application.

[10] New Rules, at 46772-77, (Indicated that all the foregoing bases would be insufficient to carry the applicant's burden of showing that the argument or evidence "could not have been submitted earlier" under the New Rules).

[11] Exhibit 11, at A04993, ("Applications that later have CONs/CIPs filed from them tend to have more claims initially. This says that applicants won't disproportionately file CONs/CIPs to get extra claims if we change the rules - they're already doing that. In FY 2006, all filings averaged 20.5 claims; all cases that were the parent of a CON or CIP filed in 2006 (parent probably filed before 2006) averaged 29.0 claims").

claims if we change the rules - they're already doing that", shows that the USPTO had, but neglected to publish, evidence contradicting its "claim transfer" adaptive response assertions. As an example, the fact that applications with large number of claims are likely to be part of continuation families that also exceed the continuation limit threshold is supported by the data shown in Table **1** for the Biotechnology and Organic Chemistry technology areas.

3 FUNDUMENTALLY WRONG ANALYSIS BY THE RFA STUDY GROSSLY UNDERSTATED THE ECONOMIC IMPACT OF THE NEW RULES.

The USPTO published the RFA Study only after its New Rules had been issued. Therefore, no opportunity existed for the public to review it and comment on it. The overarching consideration of the private value of lost patent rights due to the New Rules was ignored entirely. In its Information Collection Request submission to OMB on the ESD item[12], the USPTO estimates that only 5,000 ESD submissions per year from large entities and ***none*** (**0 !**) from small entities would be filed with the USPTO. This is remarkable given that the USPTO predicts that it will receive 479,200 patent applications in FY 2008.[13] This means that the USPTO expects virtually all applicants to cancel claims in excess of 5/25 as a response to its New Rules. The USPTO provided no support for its estimate that only 5,000 ESDs would be filed per year. It only stressed that its New Rules do not put limits on the number of claims in applications[14] and that applicants would be able to file more than 5/25 claims per application if they ***consider it necessary or desirable in particular applications***.[15]

Nowhere in its rulemaking record did the USPTO establish that the consequences of its rules would be the massive cutoff of applicants' claims beyond the 5/25 claims threshold. Assume for argument's sake, that the USPTO (silently) believed that its rule would somehow foster more "focused and efficient claiming" by applicants. This belief necessarily implies that some 2.5 million claims[6] per year filed in excess of the 5/25 threshold are an ***economic private dead weight*** procured at costs of millions of dollars in prosecution and excess claim fees. The USPTO failed to meet the burden of showing what value it assigned in its economic impact analysis to those 2.5 million claims that according to the USPTO would vanish into thin air every year. Moreover, USPTO's certification with OMB that ***no*** small entity would exceed the 5/25 threshold would imply that small entity applications are disproportionately heavy in economic dead weight.

In regards to continuations, the USPTO represented to OMB, that only 1,000 petitions for filing a second RCE would be filed per year by large entity applicants and ***none*** (**0 !**) by small entities.[16] In addition, the USPTO represented to OMB, that only 1000 petitions for filing a third continuation or continuation-in-part application would be filed per year by large entity applicants and ***none*** (**0 !**) by small entities.[17] Thus, the USPTO expects only 2,000 petitions for filing continuations in excess of its New Rules' threshold, even though its own data shows that in FY 2006 there were 11,326 (2.7%) such applications.[18] Thus, the USPTO failed to account for the value of patents issued from at least 9,326 applications that would not be filed due to the continuation limit in the New Rules. The RFA Study actually compiled studies that estimate the average value of patents. Based on USPTO application grant rate, it concluded that the value per application in the 1976 – 1992 period was about $220,000.[19] Yet, the RFA Study failed to apply this value to evaluate applicants' loss of patent rights due to the New Rules. Even if one assumes the 1992-dollar loss of $220,000 per application, the USPTO failed to account for at least $2 Billion ($220,000 × 9,326) in patent value that would be lost each year due to its continuation limit alone.

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[12] Exhibit 12, at 1. Examination Support Document Transmittal, PTO/SB/216. Available online at http://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=200707-0651-005&icID=178966

[13] *See* USPTO, FY2008 President's Budget Request, (February 2007), p. 20. at http://www.uspto.gov/web/offices/ac/comp/budg/fy08pbr.pdf

[14] New Rules at 46825, col. 3. ("The Office is ***not seeking to limit the number of claims*** in an application. Instead, the Office ***aims to improve the quality of examination***. … Thus, the changes being adopted in this final rule ***are not placing a limit*** on the number of claims.") (Emphasis added).

[15] New Rules at 46795, col. 2. ("[t]his final rule does not preclude an applicant from presenting more than five independent claims or more than twenty-five total claims. Rather, an applicant may present more than five independent claims or more than twenty-five total claims in an application with an examination support document in compliance with § 1.265 if the applicant ***considers it necessary or desirable in the particular application.***") (Emphasis added).

[16] Exhibit 12, at 2. Petition for a second request for continued examination. Available at http://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=200707-0651-005&icID=178969

3.1 The RFA Study grossly understated the number of small entities affected by the New Rules' claim limit

Invoking the USPTO unsupported assertion for the equivalence between the 5/25-claim limit in a single application and the 15/75-claims limit in a family of applications as explained in Section 2 above, the RFA Study arrives at the following result:

> "As a result, this analysis anticipates that the claims requirements, if they had been applied to applications during FY 2006, would have affected only those initial patent applications having more than 15 independent claims or more than 75 total claims. Based on analysis of PALM data on total claims in initial patent applications, approximately 1,105 filings, or 1.0 percent, submitted by small entities and 3,742 filings, or 0.9 percent, submitted by all entities in FY 2006 would incur costs under the claims requirements.[20]

This conclusion is incrementally erroneous over the previously discussed baseless assertion of the 15/75-Claims limit equivalence to 5/25-Claims limit in that it applies the 15/75 threshold to a ***single*** application. This ignores the simple fact that the distribution of the composite claim numbers made up of the ***sum*** of claim numbers from ***three different applications*** within the ensemble exceed the 15/75-Claim limit in ***many more instances*** than those found to exceed this limit in a single application. Thus, the finding that only 1% of applications would be affected contradicts even USPTO's own "minimal impact" (previously discredited) assertion that applications affected are those within continuation families having ***sums*** of claim numbers that exceed the 15/75 threshold.[21] Indeed, USPTO's own analysis found that the fraction of applications filed by small entities and by large entities in fiscal year 2006 that were in an application family that contained more than 15/75 claims were 6.3% and 4.4% respectively.[22] Thus, the RFA Study compounds the fundamental baseless analysis, asserting an impact on small entities that is six times smaller than that which USPTO later admitted and 24 to 30 times smaller than the true impact plainly evident from the record.

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[17] Exhibit 12, at 3. Petition for a second continuation or continuation-in-part application. Available at http://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=200707-0651-005&icID=178967

[18] New Rules, at 46755, Col. 1. *See also* Exhibit 13, (FY 2006 data shows that of the 11,326 applications exceeding the continuation limit rule's threshold, 3,320 were applications of small entities and 8,006 were from large entities).

[19] RFA Study, note 3, at Appendix B.

[20] RFA Study, note 3, at 12.

[21] New Rules at 46795, Col. 2. ("Only about five percent of the applications filed in fiscal year 2006 were in an application family that contained more than fifteen independent claims or more than seventy-five total claims").

[22] Exhibit 14, at A08242, (claims by application family spreadsheet shows that of the 94,613 applications filed by small entities, 5,948 (6.3%) were in families with more than 15/75 claims and that of the 232,461 applications filed by large entities, 10,239 (4.4%) were in families with more than 15/75 claims).

3.2 The RFA Study failed to identify fundamental factors that govern the costs of preparing the ESD and grossly underestimated these costs

Section 4.1 of the RFA Study purports to derive small entities' costs for preparing an ESD for applications having more than 5/25 claims. As shown below, the RFA Study overlooked major drivers for these costs including the number of prior art references and the per-claim costs of the patentability search. Moreover, the Administrative Record reveals that rather than being objective, the authors were guided by an attempt to minimize estimated unit costs and the estimated burdens their study would project. Despite the fact that an ESD would be prepared only for applications having more than 5/25 claims - the top end of the complexity scale, the authors were provided with samples of examination support briefs for the bottom end of that scale in order to formulate their estimated burden metrics.

The sample examination support briefs that USPTO supplied as representative of ESDs for the RFA Study were:

(a) Briefs filed in an Accelerated Examination proceeding for ink cartridge (mechanical) patents with low complexity.[23] The first application in the ink cartridge group had 3 independent claims with a total of 10 claims (3/10 claims); the second application contained 1/9 claims and the third had 1/4 claims. These briefs analyzed these respective claims against only 3 to 5 references each;

(b) Petition to Make Special for a patent application for a low complexity furnace.[24] It analyzed only 2/17 claims against 12 references.

In contrast, the ESD required under the New Rules requires an analysis of ***no less*** than 5/25 claims. Moreover, the number of cited references in patents has been shown to positively correlate with the number of claims[25] and therefore applications subject to the ESD rule necessarily have more references cited on average. More troubling is the fact that even from this downward biased sample of examination support briefs, the RFA Study's authors specifically chose to model their ESD burdens based on the ***smallest*** of these sample briefs (which they call the "***most efficient***") while assuming aggressively small unit cost burdens.[26]

Nowhere in the RFA Study could one find mention of the number of references cited as a determining factor for the ESD costs. The RFA Study ignored the fact that elements which it identified as Elements 2, 3 and 4 must be performed for every reference cited in the ESD. Small entity applications would be disproportionately adversely affected because small entity patentees cite more references in their patents than large entities[27], a fact corroborated by a small entity patenting study commissioned by SBA Advocacy.[28]

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[23] Exhibit 15, Exhibit 16, and Exhibit 17.

[24] Exhibit 18.

[25] J.O. Lanjouw and M. Schankerman, Patent Quality And Research Productivity: Measuring Innovation With Multiple Indicators, *The Economic Journal*, **114**, pp. 441–465, (April, 2004) (see Table 1).

[26] Exhibit 19, at A08250, (Commenting on a draft for the RFA analysis, Mr. Collier stated: "Now we'd like to get your opinion of the unit cost factors we've come up with, which we developed based on our own judgment after reviewing the "***most efficient***" of the sample ESDs you provided. … "As you can see, the costs add up quickly, even though the ***unit costs don't seem generous***"). (Emphasis added).

[27] J.R. Allison and M.A. Lemley, Who's Patenting What? An Empirical Exploration of Patent Prosecution, *Vanderbilt Law Review*, **53**, p. 2099, (2000) (reporting on a sample of patents applied for in the early 1990's and issued in 1996-1998 in Table 31 "Prior Art References by Entity Size". At that time, small business patentees cited 18.03 while large entity patentees cited an average of 14.31 references, yielding a ratio of about 1.26).

The time spent on cost Elements 2 through 4 of the RFA Study is proportional to the product of the number of claims ***times the number of references*** for which the required analysis is directed. A further compounding of costs is due to the fact the number of references in an average application grows with the number of claims, as stated above. Therefore, if the number of references is not made an explicit input variable, to first order of estimation, these cost elements fully accounted would necessarily increase ***quadraticlly*** with the number of claims and ***not linearly***, as the RFA Study suggests. The RFA Study derived a total cost result purported to be an explicit function of the number of claims and their mix, absorbing all factors that might implicitly depend on such claim counts[29]. This permits a simple sensitivity analysis that confirms the absurdity of its results: The high end cost figure of $13,121 shown in Exhibit 4-2[30] is actually the RFA Study's cost estimate for an ESD with ***50 independent claims and 300 dependent claims*** and ***not*** that of a ***typical complex*** application, as some might be misled to believe. This is a remarkable result for an application with 350 total claims.

The RFA Study also failed to account for patentability search report costs' dependence on the number of claims, further contributing to its gross cost underestimation. Without any support, the RFA Study made the factual *ipse dixit* assertion that such costs are application based, independent of the number of claims.[31] However, ESD compliance with §1.265 would require that elements of ***all*** claims be analyzed against the prior art. Therefore, relevant prior art must be found by multiple searches incorporating search queries comprising elements from ***each*** claim. The search time and the number of hits that must be processed and analyzed are therefore an increasing function of the number of claims in the applications. Indeed, a recent survey attached hereto contains price quotes for patentability search reports showing that prices quoted included per-claim cost components.[32] The RFA Study's results contending that patentability search costs for an application having 350 claims is identical to that for an application with 25 claims is simply absurd.

Stating that it relied on "AIPLA cost estimates", the RFA Study asserted: "the cost of a patent search ranges from approximately $1,000 for a relatively simple patent application up to approximately $2,500 for a relatively complex patent application". This statement grossly misrepresented the AIPLA data, biasing downward the cost estimates.[33] Moreover, AIPLA cost data were based on existing requirements and not on those required to comply with §1.265.

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[28] SBA Advocacy, *Small Serial Innovators: The Small Firm Contribution To Technical Change,* by CHI Research, Inc. Haddon Heights, NJ, (February 27, 2003), at 20, available at http://www.sba.gov/advo/research/rs225tot.pdf, hereinafter referred to as "SBA Patenting Study", ("Small firm patents contain longer lists of references to prior patents. An index of patent reference list length … takes the value of 1.81 for the small firm patents and 1.18 for the large firm patents". The study covered patents issued in 1996-2000. The ratio for this later study is therefore 1.53).

[29] RFA Study, note 3, at 18, footnote to Exhibit 4-2. ("[T]he analysis does not assume a range of costs per application, but instead applies the specific cost appropriate to the number of claims in each application").

[30] RFA Study, note 3, at 18, Exhibit 4-2.

[31] RFA Study, note 3, at 18.

[32] *See* Dr. Katznelson Decl. at Appendix A. (The patentability search report prices quoted a base price plus a cost per claim. The average per-claim search cost quote was $250).

[33] From the first two entries in Appendix A of the RFA Study, it is evident that the AIPLA data was misrepresented in two ways: (a) The 25 and 75 percentile values in the spread of survey respondents' answers to the AIPLA survey question *Q39o* was due to the variability ***across respondents*** of the amount they each charged for ***a typical*** application. Without any support or rationale for choosing these percentile points, the RFA Study erroneously attributed the percentile values to variability of application ***complexity*** when in fact complexity was not even addressed by question *Q39o.* (b) From the average response value of $2,999 (in 2004 dollars) for *Q39o*, an ***average*** cost for a ***typical*** application in 2007 dollars is approximately $3,300.

Under existing requirements, typical patentability reports do not address all the claims that are ultimately filed in the application because they are written earlier to assist in writing the application and the claims. Alternatively, patentability reports for issued patents necessarily address fewer claims, because the average number of claims in issued patents is but a fraction of the average number of claims filed in applications.[34] Hence, the AIPLA data only provides an ***average*** cost for a ***typical*** application (approximately $3,300 in 2007 dollars) and it corresponds to narrower scope requirements. An ESD, however, is to be prepared under more expansive scope requirements for ***atypical*** applications, at the top of the complexity scale, meaning that the AIPLA data can at best serve as a distant lower bound.

In conclusion, the RFA Study failed to properly account for the cost elements of preparing an ESD. An example of a rather conservative estimation of such costs are provided by this author in a submission to OMB (Dr. Katznelson Decl., at Appendix D, Section 1.3). It is calculated that the cost for preparing an ***average*** ESD is $26,720 and $20,600 for large and small entities respectively (Appendix D, Tables 1,2). The top 20 percentile costs for applications would likely be substantially higher than that.

3.3 The RFA Study's method of annualizing ESD costs is fundamentally flawed because it assumes that small entities file only one patent application per 20 years.

The RFA Study's authors chose to evaluate the economic impact of the New Rules on small entities by annualizing the incremental cost associated with an application compliant with the New Rules over a period of 20 years.[35] In doing so, the RFA Study scaled down its estimate of the financial impact associated with filing ***a single*** application by a factor of 20, necessarily assuming that small entities apply for a patent ***only once in a span of twenty years***. However, small entities that obtain patents file applications much more frequently than that. Here again, the RFA Study failed to recognize or use a major variable of the problem (applications filed per year - or application filing rate) that is ***essential*** for a determination of the economic impact of the New Rules. Clearly, on this ground alone, its calculations are therefore nonsensical.

A study commissioned by SBA Advocacy found that small patenting firms received an average of 0.42 patents per employee during the years 1996-2000.[36] Given that the average small entity employed 10 employees[37], this corresponds to an average of 4.2 patents issued over this five-year period. During this period, an average of only 70% of patent applications were allowed[38], yielding the result that small patenting firms filed an average of 1.2 (4.2 / 5 /0.7) patent applications per year. This ***average*** filing rate is 24 times grater than that used implicitly by the RFA Study. Although more information is required on small entities' revenue distribution, the USPTO has access to detailed information on application filing rate distributions for small patenting entities and in particular on the filing rates of the top 20%[39] small entity frequent filers. The RFA Study could have used such information to obtain some meaningful bounds on the economic impacts of the New Rules but failed to do so.

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[34] Exhibit 20, at A0437, (Showing, for example, that in FY 2004, the average number of claims filed in applications was 23.66 while patent issued from such applications had an average of only 15.65 claims).

[35] RFA Study, note 3, at 21-22.

[36] SBA Patenting Study, note 28, at 12.

[37] SBA Advocacy, *The Small Business Economy: A Report to the President*. (December 2006), at 8, available at http://www.sba.gov/advo/research/sb_econ2006.pdf.

[38] Ron D. Katznelson, Bad Science in Search of "Bad" Patents, *Federal Circuit Bar Journal*, **17**(1), pp.1-30, 23 (2007), available at http://ssrn.com/abstract=1007629, (showing the USPTO output allowance rate in Figure 2).

[39] RFA Study, note 3, at 24, (20% is USPTO's threshold criterion for a "substantial number" of small entities).

3.4 The RFA Study ignored the economic burdens of rebutting the presumption of patently indistinct claims

In §1.78(f) of the New Rules, the USPTO established new burdens on applicants based on a newly created presumption of patently indistinct claims in related patent applications. Instead of the examiner having to identify a double patenting situation, determining if double patenting exists, and making double patenting rejections, the applicant must take on sweeping burdens. The applicant must timely identify other pending applications or patents that have the criteria defined in §1.78(f)(1), and the applicant must timely rebut a presumption that patentably indistinct claims are present when criteria defined in §1.78(f)(2)(i)(A-D), ("Family Criteria"), exist, or file a Terminal Disclaimer ("TD"), explain why separate applications are needed, and have claims in the separate applications in compliance with the combined 5/25-Claim limits.

The USPTO created a "presumption" that is overwhelmingly counterfactual. Only about 5% of applications are in cases having a TD[40] and yet applicants of 95% of all applications would be required to rebut a negative presumption. No such requirement exists under the current rules and the RFA Study ignored this ***new*** rebuttal requirement entirely. At the end of Section 4.3, the RFA Study asserts that

> "This final rule would not generate incremental costs in this situation because 37 CFR 1.78(b) currently provides that applicants ***can be required*** to eliminate patentably indistinct claims from all but one application and the double patenting doctrine requires a terminal disclaimer if the patentably indistinct claims are not eliminated from all but one application." (Emphasis added).

This conclusion is patently wrong because under the current rules, the mere possibility that the examiner ***may require*** an applicant (in 5% of cases) to address double patenting issues does not mean that applicants have affirmative duty to take any action and write detailed briefs in all other instances. Not so under the New Rules, which state as follows:

> §1.78(f)(2)(i): "A rebuttable presumption ***shall exist*** that a nonprovisional application contains ***at least one claim*** that is not patentably distinct from ***at least one of the claims*** in another pending or patented nonprovisional application if the following conditions are met:…" (Emphasis added).

> §1.78(f)(2)(ii): "If the conditions specified in paragraph (f)(2)(i) of this section exist, the applicant in the nonprovisional application must, unless the nonprovisional application has been allowed (§ 1.311), take one of the following actions within the time period specified in paragraph (f)(2)(iii) of this section: (A) Rebut this presumption by explaining how the application contains ***only claims that are patentably distinct*** from the claims ***in each of such other*** pending nonprovisional applications or patents; or (B) Submit a terminal disclaimer in accordance with § 1.321(c). In addition, where one or more other pending nonprovisional applications have been identified, the applicant must explain why there are two or more pending nonprovisional applications naming at least one inventor in common and owned by the same person, or subject to an obligation of assignment to the same person, which contain patentably indistinct claims". (Emphasis added).

Under the New Rules, applicants cannot "internalize" their determination that the presumption is incorrect in their case. They must take action, no matter what. A full rebuttal of the presumption that ***at least one claim*** is patentably-indistinct from ***at least one of the claims*** in another pending or patented application requires an exhaustive rebuttal for ***every possible*** claim pairing from each application. There is simply no other shorter way to remove the "at least one claim" presumption. Because dependent claims are distinguished from the independent claims they depend from, a rebuttal cannot be limited to independent claims alone. Thus, if an application containing n claims is compared with a prior application having m claims, the applicant must write and submit $n \times m$ rebuttal analyses. Each such rebuttal analysis must be supported by a comparison of all features in both claims. A mere unsupported (and short) assertion of applicants' belief would not meet the rebuttal burden.[41] Alternatively, in the few cases where an explanation of why claims ***are*** patently-indistinct, applicants must expend legal resources to write these explanations in a manner that is least prejudicial to their claims. Thus, a carefully reasoned written response would be required in essentially all cases that meet the Family Criteria.

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[40] Exhibit 21, at A04785, (showing that historically only 5.5%-5.7% of applications are ultimately subject to Terminal Disclaimers); Exhibit 22, at A03625, (showing that in FY 2004 only 3,844 applications from small entities had Terminal Disclaimers therein. This is only 4.2% of the 92,597 applications filed by small entities in FY 2004 (see Exhibit 23, at A03771 for the total number of applications in FY 2004)).

3.4.1 Estimate of the economic burdens of New Rule 78(f) on small entities

A lower bound estimate of the number of applications that meet the Family Criteria and would be affected by this rule can be obtained by counting continuation applications in application families claiming the same priority date[42]. Because continuation applications have the same disclosure as that of the parent and have a common inventor and ownership, they all meet the other Family Criteria.

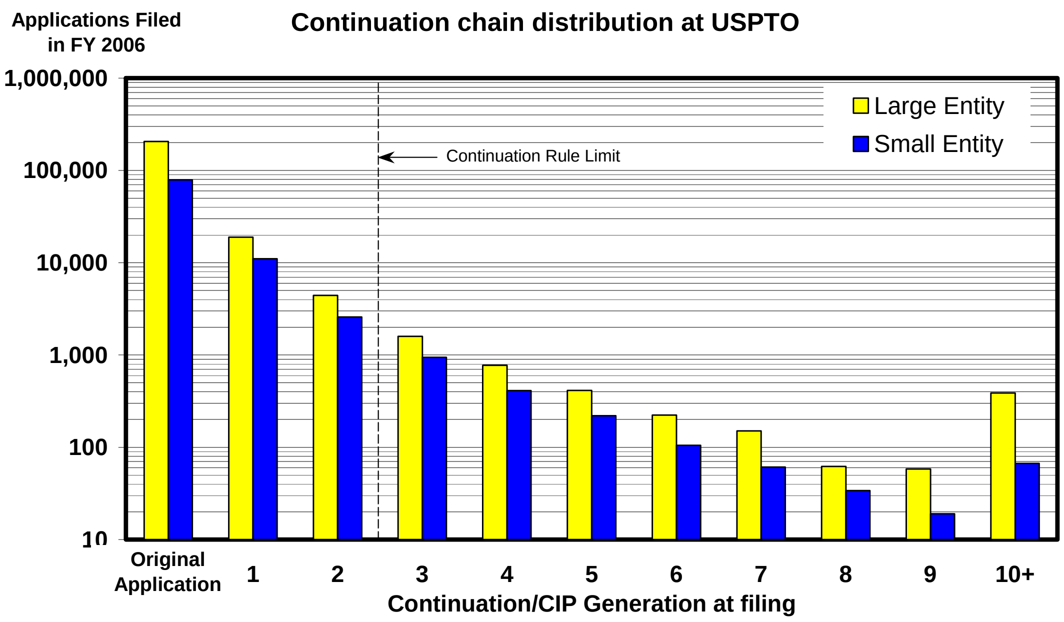

Figure 1. Distribution of continuation sequence at filing. *Source*: Exhibit 14, at A08242.

The distribution of the continuation generation number at filing is shown in Figure 1. Upon filing, a continuation application may have any number of parents ahead of it in the continuation chain. A rebuttal comparison for that application must be made with every one of the ***preceding*** applications in the chain. The first continuation must be compared only to the original application. Upon filing of a fifth continuation, for example, a comparison with five other applications (the 4th, 3rd, 2nd, 1st and the original parent application) must be made. By using

[41] New Rules, at 46780, ("Merely explaining that some of the claims are patentably distinct would not be sufficient to rebut this presumption").
[42] This lower bound does not include all possibilities related to divisional applications.

USPTO data on applications filed in FY 2006 and their respective application family size upon filing[43], one finds that the 94,613 applications filed by small entities would have required 23,964 pairwise rebuttal comparisons.[44] In other words, averaging over all applications and not just continuations, a small entity application would require an average of at least 0.25 (23,964/94,613) rebuttal comparisons. This estimate does not take into account all cases that involve filing of divisional applications or continuations based on divisions.

Crafting a reasoned written response distinguishing claims with adequate support may take more than half an hour in some long claim pair cases. In many other claim situations this might take only a couple of minutes. In ***all*** cases, however, some reasoned analysis and argument must be written and a conclusion drawn. Therefore, an average of 0.1 hours (6 minutes) per written rebuttal comparison is assumed. Assuming now that on average, 20 claims per application would be analyzed[45], resulting in 400 (20×20) rebuttal comparisons, one obtains an average burden of 10 ($400 \times 0.1 \times 0.25$) hours per small entity application. According to the economic survey of the AIPLA, the national average billing rate of a patent attorney in 2006 was $332 per hour.[46] This corresponds to about $350 in 2008 dollars, the first year the New Rules would apply. Hence, the estimated average recurring cost burden placed on small entities would be about $3,500 per application. Because the average small patenting entity files 1.2 applications per year[47], this would extend to an average annual expense of $4,200. While these estimates are somewhat coarse, they are directed to an average small patenting entity. There can be very little doubt that small patenting entities at the top 20 percentile of such cost distribution would incur annual costs that are significantly higher than $4,200 due to Rule §1.78(f) alone.

Not included in the above calculation is the recurring and punitive "tax" imposed by Rule §1.78(f) on any added claim during the prosecution of a family of related applications. The ownership, inventorship, and subject matter and filing dates of such applications would almost inevitably trigger the presumption of patentably indistinct claims. Whenever any new claim is added to one of these applications, it must be accompanied by a rebuttal brief with respect to every other claim in the application family, including those filed subsequently. A sense of the true burdens of Rule §1.78(f) was evident from a former USPTO official's statement that "***many applicants will have to expend a lot of time and resources to timely comply with the "identification" and "rebut or TD" requirements*** **[of Rule §1.78(f)]**".[48]

The annual recurring costs estimated above are not the only costs that Rule §1.78(f) would impose. Due to its retroactivity, for all pending applications in the USPTO back-file (whether a first office action was entered or not), applicants must comply with the requirements in §§1.78(f)(1-2) by February 1, 2008.[49] Given that USPTO back-file average pendency is about 32 months, a small patenting entity filing 1.2 applications per year on average has about 3.2 applications in the back-file. This means that under Rule §1.78(f), small patenting entities will have an additional one-time large expense averaging at least \$11,200 (\$3,500 × 3.2) before February 1, 2008. The top 20% small entity applicants would no doubt have much higher costs.

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[43] Exhibit 14, at A08242, (The claims by application family spreadsheet for FY 2006 shows a total of 94,613 applications filed by small entities, and 232,461 applications filed by large entities).

[44] Upon filing an application that is of generation *j* in the continuation family chain, there must be *j* pairwise comparisons to prior parent applications made in the accompanying brief. Based on the USPTO data up to the 10th continuation generation, the total number of new application comparisons in the year are therefore given by $\sum_{j=1}^{10} jA(j)$, wherein *A*(*j*) is the number of continuation applications filed during the year that are of generation *j* in their respective family.

[45] This represents a reasonable blend of the larger average number of claims in applications and the number of claims in issued patents that might be in the continuation chain.

[46] *AIPLA Report of the Economic Survey 2007*. American Intellectual Property Law Association, Arlington, VA. (July 2007) (Page I-5, Table for Q27, Q28, Q29, Q31).

[47] See the derivation of this estimate in Section 3.3 above.

[48] Robert J. Spar, *Final USPTO Rule on Claims and Continuations - Overview of Major Issues and Concerns*, presentation at the San Diego Intellectual Property Law Association, (October 11, 2007), at Slide 17. at http://www.sdipla.com/resources/ccfrhighpointsv8.ppt .

It is important to recognize that virtually none of these expenses are currently borne by the USPTO when it makes its double-patenting rejections. Rule §1.78(f) does not shift USPTO burdens to applicants. Rather, it merely creates new burdens based on unprecedented presumption that is at best correct only in 4% of small entities' applications. Moreover, the burdens are disproportionately heavier on applications further down the continuation chain, requiring comparison with all its ancestor applications and patents. Yet, the RFA Study asserted without any basis that these incremental costs are zero. By not considering these costs, the USPTO entirely failed to consider an important aspect of its New Rules.

3.5 The USPTO failed to analyze or consider other important aspects of the problem

3.5.1 The rapid rise of the fraction of applications that would be affected by the New Rules

The claim limit in the New Rules is based on a ***fixed*** threshold of 5 independent or 25 total claims. While having detailed evidence showing that the average number of claims in applications is increasing over time[50], the USPTO ignored the fact that this means that, over time, ***a growing*** fraction of applicants who seek adequate protection of their inventions would need to file claims that would necessarily cross the fixed claim number threshold. The USPTO failed to assess the rapidity with which the New Rules would therefore affect a growing fraction of applicants.

As seen in Figure 2, applicants' propensity for obtaining an increased number of claims is not unique to applications filed in the USPTO. These trends are seen for patent applications filed across the world and in particular, at the European Patent Office ("EPO") and the Japanese Patent Office ("JPO"). Researchers have suggested several economic and legal reasons for this gradual rise. The number of claims in patents was shown to correlate with the degree of technological efforts.[51] Multivariate regression studies recently identified several factors causing the growth in the number of claims in patent applications.[52] The first is the growing contributions of emerging technology sectors (namely biotechnology, computer science, and media technologies) as opposed to more traditional areas such as industrial chemistry, polymers, vehicles, or civil engineering. Another factor is the growing complexity of inventions including the research process leading to it. Yet another significant regional factor identified was the evolving practices such as submission of multiple narrower claims due to legal needs to address the eroding doctrine of equivalence and the case law on prosecution history estoppel while maintaining sufficient likelihood of infringement findings. These factors were among those widely referred to in the comments submitted to the USPTO in the proceedings leading to the New Rules.[53]

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[49] New Rules, at 46717, Col. 1.

[50] Exhibit 24, at A05620; *See also* Exhibit 20.

[51] X. Tong and J. D. Frame, Measuring national technological performance with patent claims data, *Research Policy* **23**(2), pp. 133-141, (March 1994) (Examined the relationship between technology, science, and economic variables against attributes of patents by nationality of inventors and found that the number of patent claims is an improved predictor of technological effort among nations).

[52] N. van Zeebroeck, B. van Pottelsberghe and D. Guellec, Claiming more: the increased voluminosity of patent applications and its determinants, CEB Working Paper 06-018 and CEPR Discussion Paper 5971. (March 2007), available at http://www.solvay.edu/EN/Research/Bernheim/documents/WP06-018NvZBvP2.pdf.

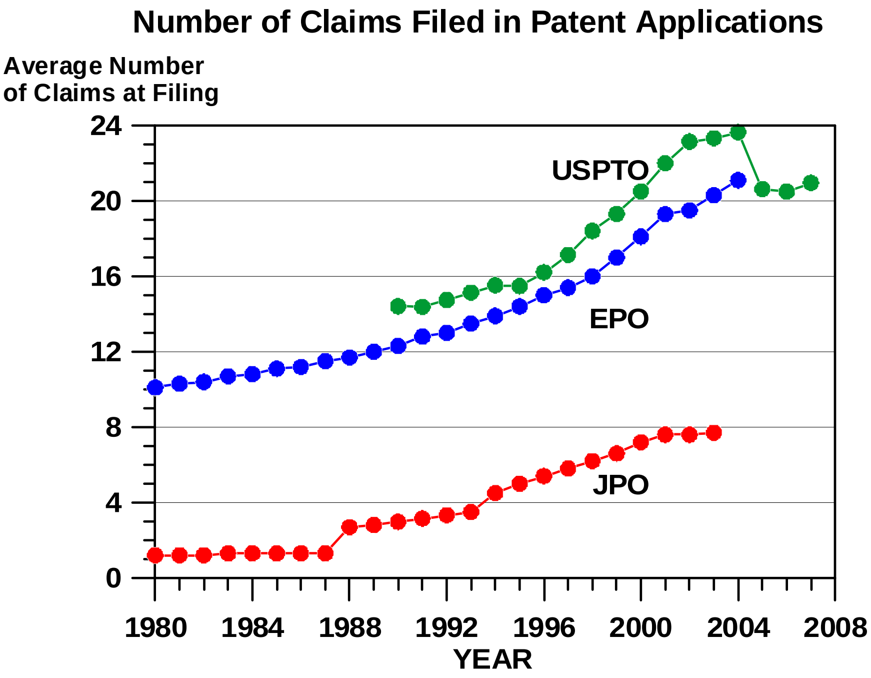
Number of Claims Filed in Patent Applications
Average Number of Claims at Filing
24
20
16
12
8
4
0
USPTO
EPO
JPO
1980
1984
1988
1992
1996
2000
2004
2008
YEAR

Figure 2. The average number of claims filed in patent applications by filing year at the USPTO, EPO and JPO. *Sources*: For USPTO data see note 50. All EPO data and the JPO data for 1995-2003 were reported in an EPO report[54]; Data for additional years in the JPO were obtained from the Tokyo Institute of Intellectual Property[55].

In regards to the factors mentioned above and in connection with the acceleration of claim obsolescence due to shortening product lifecycles, it has been suggested by researchers that the increases in the number of claims and continuations is reflective of applicants' adaptation in order to appropriate equivalent returns from their inventions.[56] [57] Indeed, evidence of progressive patent claim scope erosion over the last few decades[58] suggests that increases in the number of claims are simply a manifestation of applicants' lawful efforts to adequately protect their inventions in changing technological, economic and legal environments.

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[53] *C.f.* Final Rule, at 46788, Col. 1 (Comment 166).

[54] EPO, *The increased voluminosity of patent applications received by the EPO and its impact on the European Patent System*. Report CA/73/05, (May 30, 2005) at http://ac.european-patent-office.org/strategy_debate/documentation/pdf/ec05073.pdf .

[55] A. Goto and K. Motohashi, Construction of Japanese Patent Database for Research on Japanese patenting activities, *Institute of Intellectual Property*, Tokyo, Japan (2006) at http://www.iip.or.jp/e/patentdb/paper.pdf. (The grand average was estimated by using the technology sector data of Figure 5 weighted by the number of applications for each technology sector shown in Figure 2).

[56] R.C. Dreyfuss, Pathological Patenting: The PTO As Cause Or Cure, *Michigan Law Review*, **104**(6), pp. 1559-1578, 1565, (May 2006) ("The accelerating pace of change means that products and processes become obsolete more quickly. As a result, patent holders sometimes need wider protection — or more patents — to appropriate equivalent returns from their inventions".)

[57] R.D. Katznelson, Patent Continuations, Product Lifecycle Contraction and the Patent Scope Erosion – A New Insight Into Patenting Trends, *Southern California Law Associations Intellectual Property Spring Seminar*, Laguna Niguel, CA, (June 8 - 10, 2007), available at http://ssrn.com/abstract=1001508 , (See Section 4.2).

[58] Katznelson (2007), note 57, at Section 4.3 and Figure 6.

In estimating the rapidity with which the fraction of applications affected by the claims limit in the New Rules would be rising, the following is noted. Regression trend analysis of the USPTO data shown in Figure 2 over the period since 1990 (excluding the transient retreat in FY 2005 due to claim fee increases by a factor of 2.5) shows that the growth in the average number of total claims in applications is well described by an exponential growth of 4.2% per year on average. Assuming a similar proportional scaling of the claims distribution in applications, this increase in the number of claims is equivalent to a 4.2% reduction in the ***effective*** claim threshold, if one were to use a stationary claim distribution.

The marginal probability (or frequency) distributions of the number of claims in applications based on USPTO data[59] are shown in Figure 3. Examination of the total claim data in the neighborhood of 25 reveals that the number of applications affected increases by about 9% per effective threshold reduction by one claim (1/25 = 4% fractional change). Since the ***effective*** claim threshold would creep down by 4.2% per year, the relative number of affected applications would nominally grow by 9.5% ($9 \times 4.2/4$) per year. Thus, with this annual growth rate, it is estimated that ***the fraction of affected applications would double every 7.6 years***.

The number of continuation applications filed in a year has been growing more rapidly than the growth in initial application filings. It has been shown that the number of such applications grow at the same rate as that of new product introductions, doubling every 6.5 years.[60] Such growth trends have persisted over the last quarter of a century. Research suggests that the continuation application growth trend is related to all the factors listed above for multiplicity of claims and also a result of historical product life cycle reduction and the exponential growth in new product introductions. Accordingly, these factors necessitate new or amended patent claims in ***a growing fraction*** of inventions.[61] Thus, the requirements of the continuation limit of the New Rules would have an adverse effect on a progressively larger fraction of applicants.

The rapid burden creep of the claims limit and continuations limit in the New Rules described above is inherent in the mechanical numerical fixed limits set in the New Rules for application parameters that are rapidly growing. This indicates that the USPTO failed to consider an important aspect of the problem.

3.5.2 The disproportionate adverse impact on small entities

Generally, as Figure 3 shows, small entities rely on more patent claims than large entities. The USPTO did not adequately analyze its data to determine whether small entities are disproportionately affected. By USPTO's own criteria for economic impact, its claims distribution data shows that small entities are 40% more likely than large entities to be impacted by the claims limit in the New Rules.[62] Small entities particularly affected are those in industries requiring larger number of claims in applications, such as the Biotechnology and Pharmaceutical industries, as described below. Moreover, as discussed in Section 3.2 above, small entity applications have more references cited therein than those by large entities, disproportionately increasing their ESD costs compared to large entities. By failing to properly analyze the disproportionate adverse impact on small entities in key growth industries, the USPTO failed to consider an important aspect of the problem.

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[59] Exhibit 25, at A05043-52).
[60] Katznelson (2007), note 57, at Section 4.2 and Figure 4.
[61] *Id.*
[62] Exhibit 14, at A08242, (The claims by application family spreadsheet shows that of the 94,613 applications filed by small entities, 5,948 (6.3%) were in families with more than 15/75 claims and that of the 232,461 applications filed by large entities, 10,239 (4.4%) were in families with more than 15/75 claims. Thus, by USPTO's own measure, small entities are 1.4 (6.3/4.4) times more likely to be affected).

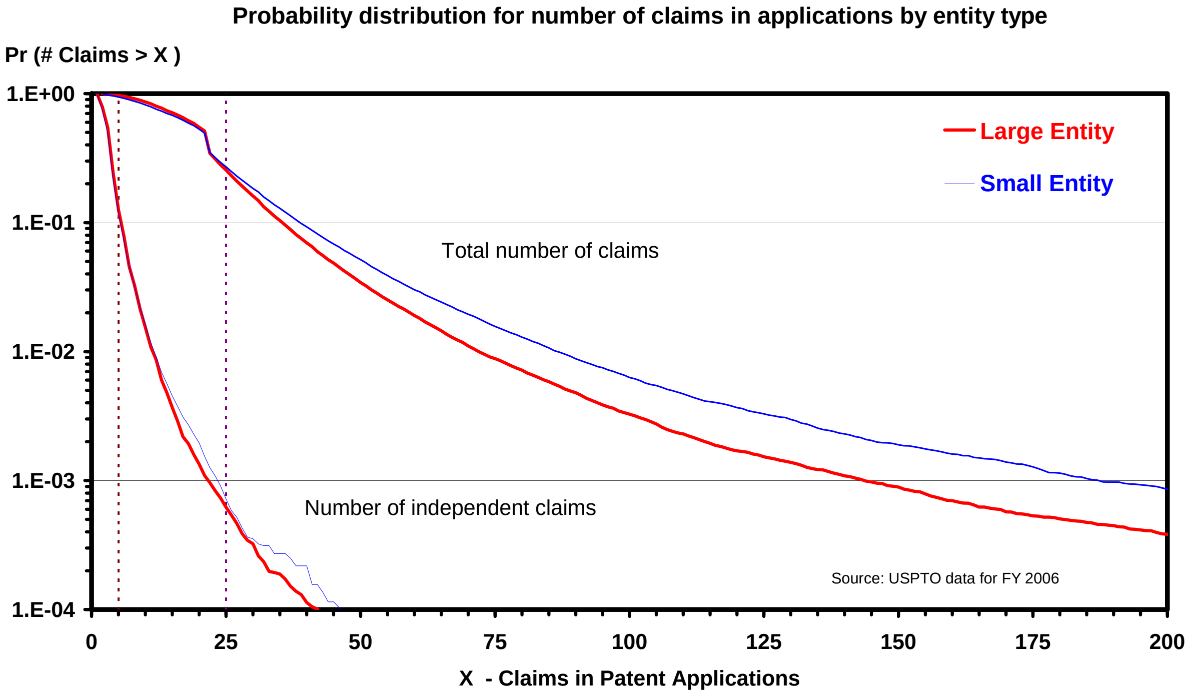
Probability distribution for number of claims in applications by entity type
Pr (# Claims > X)
1.E+00
1.E-01
1.E-02
1.E-03
1.E-04
Large Entity
Small Entity
Total number of claims
Number of independent claims
Source: USPTO data for FY 2006
0
25
50
75
100
125
150
175
200
X - Claims in Patent Applications

Figure 3. The marginal distribution of the number of claims in UPR applications in FY 2006 for which claim information was available. It is based on a total of 237,758 applications from large entities and 95,938 from small entities. Note the higher total claim counts in small entity applications. *Source*: USPTO, note 59.

3.5.3 The disproportionate adverse impact on emerging growth industry segments

The USPTO failed to analyze its data and consider whether the New Rules would disproportionately affect applicants in certain industry segments. As shown in Figure 4 and Table **1**, applicants particularly affected are those in emerging technology industries requiring larger number of claims in applications. Top among the disproportionately affected are the Biotechnology, Organic Chemistry and Pharmaceutical industries. The impact on such industries is not only due to the increased fraction of applications subject to the ESD filing requirement, but also due to the higher ESD costs associated with a larger number of claims. As Figure 4 shows, nearly 10% of applications in the Biotechnology, Organic Chemistry areas would require ESDs that analyze more than 50 claims, twice the number of claims set in the threshold. Moreover, Table 1 shows that the disproportionate impact is further compounded for these industries, as the fraction of continuation applications affected is more than double that across all industries. By failing to properly analyze the disproportionate and concentrated adverse impact on key growth industries, the USPTO failed to consider an important aspect of the problem.

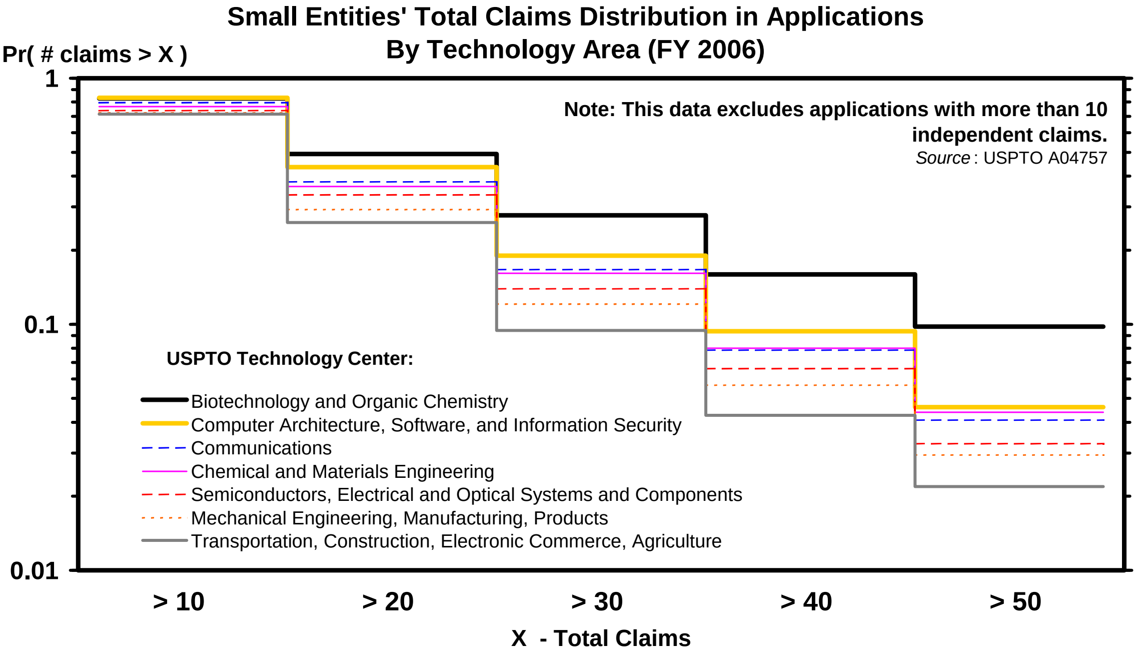
Small Entities' Total Claims Distribution in Applications
By Technology Area (FY 2006)
Pr(# claims > X)
1
0.1
0.01
Note: This data excludes applications with more than 10 independent claims.
Source : USPTO A04757
USPTO Technology Center:
Biotechnology and Organic Chemistry
Computer Architecture, Software, and Information Security
Communications
Chemical and Materials Engineering
Semiconductors, Electrical and Optical Systems and Components
Mechanical Engineering, Manufacturing, Products
Transportation, Construction, Electronic Commerce, Agriculture
> 10
> 20
> 30
> 40
> 50
X - Total Claims

Figure 4. Small entities' total claims distribution by technology center for applications in FY 2006. This chart is based on all but the 1.1% of applications with more than 10 independent claims. *Source*: Exhibit 26 at A04760.

USPTO Technology Center	Technology Area	% of Applications Affected	
		Claims Rule	Continuation Rule
1600	Biotechnology and Organic Chemistry	40%	5.6%
1700	Chemical and Materials Engineering	24%	2.1%
2100	Computer Architecture, Software, and Information Security	29%	2.9%
2600	Communications	26%	2.1%
2800	Semiconductors, Electrical and Optical Systems and Components	19%	2.0%
3600	Transportation, Construction, Electronic Commerce, Agriculture	18%	2.2%
3700	Mechanical Engineering, Manufacturing, Products	21%	3.2%
All UPR	All Areas	24%	2.7%

Table 1. Fractions of applications affected by the 5/25 claims limit and the continuations limit in the New Rules. Data is based on FY 2006 applications from both small and large entities. *Source*: Exhibit 27, at A07090.

3.5.4 The disproportionate adverse impact on domestic inventors

The USPTO failed to analyze its application data and consider whether the New Rules would disproportionately affect U.S. based inventors. U.S. Patents obtained by U.S. inventors have historically contained more claims than U.S. patents obtained by foreign inventors.[51] Based on data presented by this author elsewhere[63], U.S. patent applications filed by U.S. inventors contained an average of 75% more claims per application as compared to U.S. patent applications filed by Japanese inventors and 43% more claims than U.S. patent applications filed by European inventors. With such disproportionate claim averages, it is virtually certain that the claims limit in the New Rules would affect a significantly larger fraction of domestic inventors

[63] Dr. Katznelson Decl., Appendix C, available at http://www.whitehouse.gov/omb/oira/0651/comments/460.pdf , at 23, (June 29, 2007) (Figure 6 shows that the average number of claims filed by North American (primarily U.S.) inventors in FY 2004 was approximately 28 whereas applications filed by European and Japanese inventors had an average of 19.5 and 16 claims respectively).

as compared to foreign inventors. Moreover, domestic inventors who would file ESDs would be incurring significantly higher expenses on such ESDs as compared to foreign inventors. By failing to analyze and consider the disproportionate adverse impact on domestic inventors and the negative implications to U.S. competitiveness, the USPTO failed to consider an important aspect of the problem.

4 CONCLUSION

From the previous sections, it is clear that in essentially every category, the RFA Study understated the economic impact of the New Rules. Based on the USPTO's own criterion for significant economic impact and small entity revenue, the foregoing sections show that:

(a) The 5/25-Claim Limit rule would have a significant economic impact on a substantial number of small patenting entities.
(b) The requirement to identify and rebut a presumption of patently-indistinct claims will have a significant economic impact on a substantial number of small patenting entities.

This report shows that the USPTO provided highly defective economic impact analysis in its RFA Study.